

**DTA115TM / DTA115TE / DTA115TUA /
DTA115TKA / DTA115TSA**

- 1) Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors.
- 2) The bias resistors consist of thin-film resistors with complete isolation to allow positive biasing of the input, and parasitic effects are almost completely eliminated.
- 3) Only the on / off conditions need to be set for operation, making device design easy.
- 4) Higher mounting densities can be achieved.

DTA115TM

ROHM : VMT3

(1) Base
(2) Emitter
(3) Collector

DTA115TE

ROHM : EMT3
EIAJ : SC-75A

(1) Emitter
(2) Base
(3) Collector

DTA115TUA

Each lead has same dimensions

ROHM : UMT3
EIAJ : SC-70

(1) Emitter
(2) Base
(3) Collector

DTA115TKA

Each lead has same dimensions

ROHM : SMT3
EIAJ : SC-59

(1) Emitter
(2) Base
(3) Collector

DTA115TSA

Taping specifications

ROHM : SPT
EIAJ : SC-72

(1) Emitter
(2) Collector
(3) Base

DTA115TM / DTA115TE / DTA115TUA / DTA115TKA / DTA115TSA

Transistors

●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	-50	V
Collector-emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-100	mA
Collector power dissipation	DTA115TM / DTA115TE	150	mW
	DTA115TUA / DTA115TKA	200	
	DTA115TSA	300	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

●Package, marking, and packaging specifications

Part No.	DTA115TM	DTA115TE	DTA115TUA	DTA115TKA	DTA115TSA
Package	VMT3	EMT3	UMT3	SMT3	SPT
Marking	99	99	99	99	-
Packaging code	T2L	TL	T106	T146	TP
Basic ordering unit (pieces)	8000	3000	3000	3000	5000

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	-50	-	-	V	$I_C = -50\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	-50	-	-	V	$I_C = -1mA$
Emitter-base breakdown voltage	BV_{EBO}	-5	-	-	V	$I_E = -50\mu A$
Collector cutoff current	I_{CBO}	-	-	-0.5	μA	$V_{CB} = -50V$
Emitter cutoff current	I_{EBO}	-	-	-0.5	μA	$V_{EB} = -4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	-0.3	V	$I_C/I_B = -1mA/-0.1mA$
DC current transfer ratio	h_{FE}	100	250	600	-	$I_C = -1mA, V_{CE} = -5V$
Input resistance	R_1	70	100	130	k Ω	-
Transition frequency	f_T	-	250	-	MHz	$V_{CE} = -10V, I_E = 5mA, f = 100MHz$ *

*Transition frequency of the device.

●Electrical characteristics curves

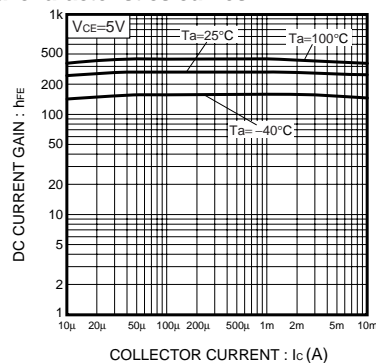


Fig.1 DC current gain
vs. Collector current

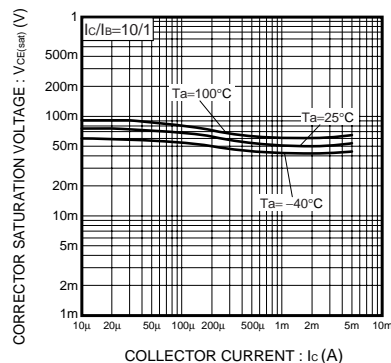


Fig.2 Collector-Emitter saturation voltage
vs. Collector current

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